Nuclear Proliferation and the Dilemma of Peace in the Twenty-First Century

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To Jo Palmieri

whose hard work and dedication made this book possible

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PREFACE

The idea for this book germinated as I contemplated what could be done to celebrate the 50th anniversary of the call in 1957 by the 1952 Nobel Peace Prize laureate, Dr. Albert Schweitzer, to end nuclear testing and eliminate nuclear weapons.

With the support of the chairman of the board of directors and the president of Quinnipiac University, Dr. John Lahey, I decided that a conference on the topic of nuclear weapons and their elimination would be an appropriate step.

Dr. Schweitzer had been convinced by Norman Cousins, the long-time editor of the *Saturday Review*, that given his international reputation and respect as a humanitarian, he should lend his voice to the growing chorus of prominent and influential people who, at the time, were beginning to oppose the danger of nuclear weapons.

Dr. Schweitzer agreed to this request and, as was his wont, deeply immersed himself in understanding the science of how a nuclear bomb worked and the danger from radiation that emanated from nuclear weapons. Only when he completely understood the science and the implications of an explosion of a weapon of this type did he move forward with any public comment. In April of 1957, Dr. Schweitzer broadcast a speech worldwide through the good offices of the Nobel Peace Prize Committee and Radio Oslo which spelled out the dangers of atomic weapons and radiation in detail. This first speech was followed by two more speeches shortly thereafter which further amplified the deadly danger of these explosive devices.

I had the opportunity to spend some time in Hiroshima a few years ago. I remain haunted by one memory of seeing several amorphous black blobs of soot seemingly stuck to a brick wall. They remain in a place that was once a part of the mayor's office of Hiroshima before the United States dropped the atomic bomb there. It was explained to me that these amorphous black blobs of soot were human beings who were waiting in some sort of line when the weapon exploded. They had been instantly vaporized and turned into carbon. Their remains then adhered to the wall they were standing next to—and that I was then viewing. I was transfixed by the sight of what turned out to be gravestones for anonymous people

whose names we will never know and whose remains were indelibly etched on the bricks.

It is sometimes not easy to remember that when one talks about radiation, the nuclear fusion process, and the throw-weights of missiles, that what we are talking about here is the possible wholesale destruction of a vast majority of the population of a major city should one of the extremely powerful bombs explode, not to mention serious and long-term destruction to the environment. For me, there is almost no other issue that is as important as nuclear weapons; Schweitzer's moral example, and courage, to oppose nuclear weapons when it was not popular resonates and is relevant even today.

In May, 2010, the world will gather at the United Nations for a review conference for the Nuclear Non-Proliferation Treaty, an event I consider of seminal importance. Every five years, diplomats gather in New York to consider the changes needed to make the treaty more effective. The meeting this May is the best opportunity to keep this extraordinarily important treaty relevant and to counteract the growing desire, on the part of some countries, to acquire nuclear weapons. Care must be taken to encourage countries that have nuclear weapons to eliminate them as they promised and to discourage countries from building or buying them. The notion that it is prestigious to have atomic weapons must also be challenged at this meeting.

It is my hope that this small volume will in some way aid in the motivation and understanding of the problems we face as we try to eliminate nuclear weapons in our lifetime.

I wish especially to thank Jimmy Carter, the former President of the United States, for his agreement to contribute to this volume. I am also grateful to Mr. Jonathon Granoff, Esq., the President of the Global Security Institute who is as knowledgeable as anyone I know about nuclear weapons, for his sagacious and ongoing advice.

Lastly, I wish to thank my assistant Josephine Palmieri for all her work on behalf of the Albert Schweitzer Institute.

—David T. Ives
Hamden,
Connecticut
September, 2009

CHAPTER ONE

SPEECH AT QUINNIPIAC UNIVERSITY SEPTEMBER 26, 2007

JAMES EARL CARTER, III

I want to first thank Quinnipiac University President John L. Lahey for this great award he has given me, a very distinctive thing for my life. I want to thank the community for arranging weather that makes me feel like I'm in south Georgia. It's a real pleasure to come back to Connecticut where my family and I have lived twice in my career as a naval officer. I was a submariner over at New London and Groton; my youngest son was born here, as a matter of fact. So, I feel at home. Since I left the White House, I've had a lot of delightful occasions, and you can imagine that when you have been president of the greatest nation in the world how some nice things can happen to you.

I remember shortly after I left the White House, I went to China where we had normalized diplomatic relations, and on the way back we stopped in Japan. I was asked to make the graduating address at a small Methodist college in southern Japan, near Osaka. When I arrived, there were about 600 people in the college, and everybody was nervous because I had just recently left the White House, and I was a very famous person, and everybody was uptight: the students, the faculty, the parents who were there. So, I decided to tell them a joke. As you can imagine, as you probably know, when you translate something from English to Japanese it takes a long time to say it. So, instead of using my funniest joke, I just decided to use my shortest joke. So, I told my joke, and the audience collapsed in laughter. It was the best response I've ever had in my life to a joke, and I couldn't wait for my speech to get over to get back in the green room and ask the translator "How did you tell my joke?!" When I asked him this, he was very evasive. I finally insisted. I said, "You've got to tell me how you told my joke." And he ducked his head and he finally said, "Well, I told the audience 'President Carter told a funny story, everyone

must laugh.'" So, you can say that there is an advantage in having been president of the United States.

And it was just a couple of years after that that I traveled to Hiroshima. I was the first American of a very high level in our country to visit the site of the first atomic bomb that was used in warfare, and my speech to a large crowd was to implore the Japanese to join with the United States in trying to promote peace in the future to avoid any threat of this terrible plight on human rights.

It's an honor for me to be associated, even in this small way, with one of my long-time heroes, Dr. Albert Schweitzer. A few years ago, Johns Hopkins University published an autobiography of Albert Schweitzer based on his own notes, and they honored me by asking me to write the foreword. I began my foreword with these words: "Albert Schweitzer brought to the early twentieth century one of the most powerful and wide-ranging intellects the world has ever seen. He not only studied but mastered philosophy, music, theology, and medicine. And then Dr. Schweitzer demonstrated his gratitude for the gifts that he had been given by God by devoting a majority of his life to relieving the suffering of the people of Central Africa."

As many of you know, Dr. Schweitzer received a Nobel Peace Prize in 1952, but he waited about two years to deliver his lecture, which he entitled "The Problem of Peace." He dealt decisively with this broad subject. He then began a sometimes unpublicized personal crusade around the world against the dangers of a nuclear holocaust. He wrote strong letters and very persuasive letters to President Eisenhower, and to President Kennedy, and to other leaders around the world. He joined in broadcasting similar strong messages against nuclear war to 140 radio stations that covered the entire earth. In fact, while continuing his ministry to the villages in Gabon, as it is now known, he adopted nuclear arms control as his major global commitment.

The year that Dr. Schweitzer was given the Nobel Peace Prize, I happened to have been working in Schenectady, New York. I was doing my graduate work at Union College, in nuclear physics, which would now be called reactor engineering. I was working under Admiral Hyman Rickover in the first major peacetime application of atomic power, the propulsion of ships. I was in charge of the crew of a second atomic power plant on the USS *Seawolf* submarine. I later became president of the United States, as some of you might remember, and I inherited the awesome threat of a nuclear holocaust during the later years of the Cold War, when the United States and the Soviet Union confronted each other with arsenals of an indescribable power. I knew the entire time I was

president, that twenty-six minutes after we detected the launching of an intercontinental ballistic missile, that that missile would strike Washington D.C. or New York or any other target that the Soviets had chosen. I and [Soviet] President [Leonid] Brezhnev knew that we had an equally strong retaliatory capability centered primarily in the intercontinental ballistic missile submarines. They were almost invulnerable to any kind of surprise attack.

Just the nuclear warheads from one of those ships could have destroyed every city in the Soviet Union with a population of 100,000 or more. Well, this nuclear threat strengthened our commitment to peace. After I left the White House and formed the Carter Center, exactly 25 years ago, President Gerald Ford joined me in sharing our first major international conference, which included the foremost experts and political leaders from the Soviet Union and the United States. Our goal was to analyze the existing nuclear threat and the opportunities to reduce these remaining dangers to human existence on the face of the earth.

Later, in 1994, I was involved in a nuclear incident again when I went to North Korea to convince Premier Kang Song-san not to reprocess the spent fuel rods from their old graphite-moderated reactor into plutonium, which could be used to make atomic explosives. It was a successful mission, as a result of which President Bill Clinton wisely negotiated and adopted an official agreement with North Korea. They agreed to freeze those spent nuclear rods and decommission their nuclear power plant in exchange for which the United States and Japan and South Korea would provide North Korea with enough fuel oil to replace the atomic electric power lost when they shut down the plant, and also to then build two modern power plants to replace the one that was decommissioned. Unfortunately, this agreement was quickly abrogated, or cancelled by the new administration that came to Washington in 2001. North Korea once again threatened to become a nuclear power.

Like every president since Dwight Eisenhower, I worked to limit and reduce nuclear arsenals, efforts that brought Richard Nixon's SALT I Treaty, John Kennedy's ABM Treaty (Anti-Ballistic Missile Treaty), President Ford's Vladivostock Agreement, my SALT II Treaty, and the so-called START treaties consummated by Ronald Reagan and George Bush, Sr. But so far as I know, there are no present efforts to reduce these arsenals having mandatory goals and verification capabilities. Indeed, there are serious threats today even to those nuclear arms agreements that are existing. In fact, ratification of Reagan's START Treaty has never been seriously considered by the U.S. Senate or by the Soviet parliament.

Another prevailing policy then was a mutual pledge by all nuclear powers not to use atomic weapons against any nation that did not have nuclear weapons themselves. Unfortunately, America also has rejected this no first-use pledge in 2001, and has aroused a somewhat predictable response from other nuclear powers: China, Russia, Great Britain and France. In 1991, the U.S. Senators Sam Nunn and Richard Lugar co-sponsored legislation that pledged that the United States and Russia would join in a proper disposal of Russia's enormous nuclear stockpiles, but this wise and effective program is in danger now because of a lack of adequate financing and because there is no real effort in Washington or Moscow to fulfill the promises that were made. There are now about 30,000 nuclear weapons worldwide, of which the United States is known to have 12,000, the former Soviet Union about 16,000, China about 400, France about 350, Israel 200 or so, Great Britain 185, and India and Pakistan 40 each. Some of these, as you can well imagine, may be underestimated. It is believed also that North Korea now has purified enough plutonium to produce about a half dozen explosives.

Well, I would say with the mass arsenals still maintained on hair-trigger alert, it's just as possible now through mistakes or misjudgments as it was through the depths of the Cold War to have a global holocaust. Let's consider for a moment the threats from sources other than the major nations. It would be impossible for a developing nation, a small nation, to develop both nuclear warheads and also an intercontinental missile to deliver them without the entire world becoming familiar with this extraordinary achievement. A lesser challenge might be to place a rudimentary nuclear warhead on a short-range rocket and launch it from a few hundred miles offshore. There are hundreds of such missiles available now in the international weapons market. One example would be the highly publicized Scud missile, which was used by Saddam Hussein, as you know. In either of these scenarios, the assailants who launch the attack would most likely be identified and destroyed, and they know it. It's much easier for an assailant to make a small dirty bomb, nuclear, chemical, or biological, and smuggle it undetected into the seaport in New York, London, or any other coastal city in a cargo container or in one of the many ships that enter seaports around the world everyday with no serious inspections. Such a weapon could even be loaded on a truck in a cargo container and hauled inland, say, to Chicago and exploded. The identity of the attacker in this case might be very difficult or impossible to ascertain.

So, the threat still exists, although there are a number of nuclear arms control agreements in question that are already outlined. I'd like to discuss one that is designed to maintain minimal nuclear arsenals and to constrain

proliferation: that's the Nuclear Non-Proliferation Treaty (NPT). First approved in 1970, this agreement envisioned the end of all nuclear weapons. A total of, I believe, 187 nations have now agreed to accept the terms of the so-called NPT, including the five major nuclear powers that I have already mentioned. Its objective is, and I'd like to quote, "to prevent the spread of nuclear weapons and weapons technology, to promote cooperation in the peaceful uses of nuclear energy, and to further the goal of achieving nuclear disarmaments and general and complete disarmament." This is the only binding commitment on nonproliferation between the nuclear weapon states and nations that don't yet have nuclear weapons. The International Atomic Energy Agency (IAEA) is responsible for, among other duties, implementing the Nuclear Non-Proliferation Treaty one of whose provisions is to review the treaty every five years and reconvene at the Carter Center prior to anniversary dates: 1995, 2000, 2005, for instance. It is a formal preparation for the non-nuclear nations that have the technology of producing such weapons to plan their strategy for strengthening and implementing the NPT treaty.

At the session in 1995, a proposal was made to extend this treaty on a relatively simple commitment made earlier in pledges by the major nuclear powers. I'll mention them, and you can see how simple they are:

* First, adoption of a comprehensive test ban treaty to stop all testing of all nuclear explosives.

* Second, conclusion of a fissile material cutoff treaty. That is, to prevent the shipment back and forth among the nations of explosive type materials.

* And third, the reduction of nuclear arsenals with the ultimate goal of eliminating them. Those are the three proposals.

Tragically, neither the United States, nor any others have honored any of these three proposals. For the session in 2005, only Israel, Pakistan, and India plus North Korea were not participating. And you know three of those have substantial nuclear arsenals and the other, North Korea, has tested an explosive device. A proposal by the International Atomic Energy Agency would have imposed a five-year moratorium on all new enrichment of nuclear materials. Enrichment means that when you have a power plant that produces electricity and you use up the uranium or the fuel, then those rods are taken out of the reactor and if they are enriched, they can be changed into high enough concentration of explosive materials to make bombs. But the United States joined with Iran, strangely enough, in opposing the moratorium because of its "potential disruption of nuclear power projects." Despite the importance of the issues involved in this discussion of the Non-Proliferation Treaty, neither the president [George

W. Bush] nor the secretary of state [Condoleezza Rice] nor any of their top deputies attended the discussion.

Decisions by leaders from America and a few other nations have cast serious doubt on the future of the Nuclear Non-Proliferation Treaty itself. A recent United Nations report starkly warned, "We are approaching a point at which the erosion of the nonproliferation regime could become irreversible and result in a cascade of proliferation." In rejecting or evading almost all nuclear arms control agreements negotiated during the past fifty years, the United States of America has now become a prime obstacle to preventing nuclear proliferation. Former Secretary of Defense Robert McNamara has summed up his concerns in an issue of *Foreign Policy* magazine, and I'd like to quote McNamara, "I would characterize current United States weapons policy as immoral, illegal, militarily unnecessary, and dreadfully dangerous."

In October 1999, after 10 years of intense negotiation, the Comprehensive Test Ban Treaty was rejected by the United States Senate. There are other developments that are of great concern to me and to the world such as a notable lack of enforcement of extremely weak international agreements against the transfer of explosive nuclear materials from one country to another. The commitment of the United States to an unproven and very costly Star Wars missile defense system costing us about $9 billion a year has led Russia, China, and other nations to declare that the development of this system would abrogate or cancel the effectiveness of the Anti-Ballistic Missile Treaty that was negotiated by President John Kennedy. The U.S. Arms Control and Disarmament Agency was a lively federal organization when I was president. The Arms Control and Disarmament Agency has now been abolished, removing an ineffective but at least functional entity. Listen to this: as far as I know, none of these issues that I just outlined to you has been mentioned in the ongoing political debate involving the next president of the United States.

Understandably, non-nuclear nations have grown increasingly skeptical of the sincerity of nuclear nations, decrying or condemning the lack of good faith efforts by the major nuclear powers. A number of years ago, India and Pakistan used these failures as an excuse, at least, to develop nuclear arsenals of their own. Not surprisingly, these states and Israel are refusing to comply with any Non-Proliferation Treaty restraint. Let's mention Iran for a moment. Iran is a Non-Proliferation Treaty nation. They have signed and sworn to abide by the Non-Proliferation Treaty. They have repeatedly denied, as you know, including yesterday at the United Nations, any intention to use enriched uranium for weapons, claiming that their nuclear program is strictly for a peaceful purpose. It's disturbing to

remember that the same explanation has been given in the past by India, Pakistan and North Korea and has led to atomic weapons in every case. At the same time, Israel's uncontrolled and unmonitored weapons status entices neighboring leaders in Syria, Egypt, Saudi Arabia and so forth to join the nuclear weapons community.

Let me discuss just one other specific concern, and that is a currently proposed agreement with India supported by the United States which will further undermine the nuclear nonproliferation regime. Knowing since 1974 of India's nuclear ambition, every American president, including me, imposed a consistent policy, which I think is very logical: no sales of nuclear technology or uncontrolled fuels to India or to any other countries that refuse to sign the Non-Proliferation Treaty.

Today, these restraints are being abandoned. I have no doubt that India's political leaders are just as responsible in handling their country's arsenals as leaders of the five original nuclear powers. But there is a significant difference; the original five have signed the Non-Proliferation Treaty and have stopped producing explosive material for weapons. India's leaders should make the same pledges and join other nuclear nations in signing the comprehensive nuclear test ban treaty. Instead, they have rejected these steps and insist on unrestricted access to enough explosive material from the U.S. and others for as many as fifty weapons per year. If India's demands are met, why should other Non-Proliferation Treaty nations such as Brazil, Egypt, Saudi Arabia, and Japan—to say nothing of less responsible nations—continue to restrain themselves? Having received at least tentative approval from the president and the Congress from the United States for its policy, India still faces two further obstacles. An agreement with the International Atomic Energy Agency (IAEA) and an exemption from the forty-five member nuclear supplies group, some of which have representatives here this afternoon, which until now has barred or prevented any nuclear trade with any nation that refuses to accept international nuclear standards. The role of these forty-five nations and IAEA is not to prevent India from developing nuclear power or even nuclear weapons, but just to proceed as almost all other responsible nations have done by signing the Non-Proliferation Treaty and accepting other reasonable restraints.

To conclude, let me say this: to face this broad pattern of serious threats, nuclear powers must show leadership by restraining themselves and by curtailing future departures from the Non-Proliferation Treaty's international restraint. One by one, the choices they are making today will create a legacy about which Albert Schweitzer was concerned fifty years ago: deadly or peaceful for the future.

Some American leaders are deeply concerned, although they are careful not to criticize any official United States government policy. A bipartisan group headed by former Senator Sam Nunn, former Secretary of State Henry Kissinger, former Secretary of State George Ball, and Bill Perry published an editorial in the *Wall Street Journal* just a few weeks ago, which I and many others have endorsed. This editorial declared, and I quote, "We believe that a major effort should be launched by the United States to turn the goal of the world without nuclear weapons into a joint enterprise. Such a joint enterprise would lend additional weight to efforts already underway to avoid the emergence of a nuclear armed North Korea and Iran." This is a very important declaration from distinguished leaders, but you see they concentrate on North Korea and Iran and they don't mention any of the policies of the United States.

Some specific recommendations were these:

* First, substantial reductions of all nuclear forces.

* Second, the elimination of short-range nuclear missiles called tactical nuclear weapons. These are located all over NATO areas, and they can be launched almost instantaneously. They have a very short flight path so that destruction would take place before they were detected.

* Third, United States ratification of a comprehensive test ban treaty.

* Fourth, high security for all weapons and nuclear material. This is not the case now because inspectors have shown that particularly in Russia, the enormous stock piles of missile materials and weapons are very lightly secured.

* Fifth, tight control of nuclear fuel.

* Sixth, no production of explosive material that can be used for nuclear weapons.

* Seventh, this one is obvious: early resolution of regional conflict so that conflict involving a nuclear power won't degenerate into hopelessness on the part of one of the antagonists, so they might launch nuclear weapons to protect the existence of their own country.

* Eight, an increase warning time to prevent the accidental launch of a nuclear weapon. Some of the inspections that have been made in the Soviet Union show that almost instantaneously one of those existing weapons, I presume not aimed at us still, could be launched by mistake.

* And the final recommendation, with which I'm sure all of us in this audience agree, is ultimately a world completely free of nuclear weapons. I think it is important.

To conclude, let me add that it is extremely important to all of us in this audience to adopt this goal as our own and to use our utmost abilities and influence to bring about what Doctor Schweitzer prayed for and

worked for and what many of us support… and that is to eliminate every single nuclear weapon from the face of the earth.

Thank you.

President Carter conducted a question and answer session after his talk. The exchanges included the following:

Q: Many are concerned with Iran's intentions about their development of nuclear power. The Iranian government repeatedly claims that they are interested only in the peaceful development of the technology. Are you concerned that Iran is developing a nuclear weapons program, and what do you believe is the best way to proceed?

A: Yes, I'm concerned about it, and I think everyone else is, that any other nation including North Korea or others should develop nuclear weapons, particularly in secret. As all of you know, Iran has admitted that they are purifying the spent nuclear fuel rods and developing it into enriched uranium or sometimes perhaps plutonium. They insist that this is their right under the Non-Proliferation Treaty terms. This is true, it is permitted, but it also implies that any nation that does that should continue to have their operations under the supervision of the International Atomic Energy Agency and its inspectors. So far with a moderate degree of cooperation, Iran has complied. So, legally, Iran is not violating the terms of the Non-Proliferation Treaty, but the concern, which all of us share and which no one can predict, is whether the ultimate goal is to enrich uranium or to produce plutonium to a high enough quality to make atomic weapons out of it. I don't think I or anyone else can predict what they might do or what their real intentions are. We've seen the president of Iran lately make a strong speech of rejection yesterday. We have to remember that he is not the leader of Iran. The leader of Iran, as it was when I was president and the Ayatollah Khomeini was holding my hostages, is the leading religious person in Iran, Khamenei. So we don't know what Iran is going to do. I think the best approach, though, is for the United States to open full and unrestrained discussions or communications on diplomatic relations with Iran and to reassure the Iranian people through regular channels of diplomacy that they are not the next target to be attacked after we attack Iraq…because you remember that our president [George W. Bush] announced shortly after he was inaugurated that there were three sources of threat to the world: North Korea, Iraq, and Iran. And when we invade Iraq the other opportune nations begin ask themselves, "are we next?" So, I think it's very important that Iran be brought into full discussions including with the United States at the highest level so that we can discourage their desire to have a nuclear capability, and secondly to

alleviate their concerns that they need to have atomic weapons in order to protect themselves in the future.

So I don't think it's going to happen, I pray that it won't, but it's got to be resolved through diplomacy. Any continued escalation of the threats against Iran, which are all over the news reports now, only tend to incite the Iranians to take extreme steps that might even be suicidal on their part. So diplomacy is the best way to deal with it and holding Iran to its commitments made under the Non-Proliferation Treaty…that's the best approach.

Q: Given the mass genocide of the Sudanese people in Darfur, what do you believe should be the role of the United States in the international community in alleviating their suffering?

A: I've been involved personally in the Sudan now since 1989, and I'll be leaving in two days to go back to Khartoum. We'll be visiting in southern Sudan in Juba, and will go from there to Darfur. I'll be accompanied by other distinguished leaders including Archbishop Desmond Tutu. Our goal will be to strengthen the commitment not only of the government of Khartoum under President [Omar Hassan Ahmad] al-Bashir, but also to ensure that for the first time the members of a United Nations Security Council fully implement the resolutions that they pass. As you know, there are now about seven or eight thousand African soldiers in the Darfur area. They have not been adequately supplied with uniforms or tents or small weapons as promised, and now there is another commitment by the United Nations Security Council that there will be 23,000 other troops that will join those to give them more comprehensive protection to the people of Darfur. The president of Sudan, al-Bashir, has agreed to accept this decision, but it remains to be seen whether the other nations of the world are willing to supply the troops and the money to carry out this commitment.

One of the serious problems in Darfur has not only been the persecution of the primarily black people by the Arabs, the Arabs supported by the government in Khartoum, but also has been the abuse of the relief agencies who have been made vulnerable to attack by different sources. So, those are the kind of things that we hope to encourage on our visit there this weekend, so we'll be doing the best we can to continue the international effort not only to publicize the plight of the people in Darfur who are suffering but also to make sure that the major nations carry out their promises and make it possible for the peacekeeping forces to function properly.

Q: With many Americans driving SUVs and Hummers, it seems that Americans are more wasteful then they were during the 1977 energy crisis. Do you feel that America is heading toward a major energy crisis and, if we are, should Congress and the president institute a policy like the one you instituted?

A: Yes...well, some of you are old enough to remember what I inherited when I became president. There were long gas lines under President Nixon and the Arab OPEC nations had a boycott against our country. They also had a secondary boycott against any corporation in America that did business with Israel and so forth. At that time we were importing nine million barrels of oil per day from those same people. I worked for four years to get a comprehensive energy policy passed that was put into law, increasing the efficiency of automobiles, homes, electric motors and so forth. And within six years we had reduced the nine million barrels per day down to five million barrels per day. Now, it's twelve million barrels per day, and a lot of the suppliers of the precious fuel are not very friendly towards us. They are uncertain suppliers. And so I think just strategically speaking, not talking about energy, but talking about politics, it is very important for us to reduce our dependence on those overseas suppliers.

There are many ways that we can do it; other nations are already doing it:

*I would say that increasing the energy derived from renewable sources from wood and sunlight and wind and so forth, should make up about twenty percent of our total energy consumption.

*We should emphasize the clean burning of coal, and we should also emphasize the efficiency of automobiles. As you know, when you see a Hummer going down the road, which I think is a disgrace to America, it's getting probably nine miles per gallon. And it's exempt from any mileage constraints; motor vehicles should be thirty-two to thirty-five miles per gallon mandated. I hope that that will come.

So the Congress and president should move toward some of these steps that I just described.

Q: Where were you and what were your first thoughts when you found out that you had won the Nobel Peace Prize?

A: I was in bed, I might hastily say with my wife, sound asleep and the telephone rang, and it was the Secret Service calling. They had informed Rosalynn, who sleeps on the side by the telephone, that the Nobel committee wanted to speak to me in a half an hour. This was in 2002. I had lost all expectations of ever receiving the prize. I was instantly awake;

I didn't go back to sleep. A half an hour later, the secretary of the Nobel Prize said that I had won the prize. So, those were the circumstances. I was very excited, obviously. That was about ten minutes before they announced it on CNN and the world news media. The next thought I had was "What am I going to say when I get there?" And so I began to write my speech. It did not take me two additional years to write it, like it did Albert Schweitzer, but I put a lot of time on it. It was a wonderful experience for me. It was really recognizing the work that has been done now for twenty-five years by the Carter Center. So, I felt that the prize was not to me personally, it was to all the people who joined with me in the Carter Center working now in more than seventy nations around the world, thirty-five of which are in Africa. So in a tiny way, we are trying to emulate what the great Dr. Schweitzer did in what is now Gabon.

A: Is there enough being done to promote peace as compared to when you were in office? What should be done differently, especially by young people, to promote peace?

Q: Well, I would say the answer is no. I don't know of any real international effort to promote peace. I'm not discounting the United Nations Security Council because sometimes they do decide to help with peace projects, but they are mostly peace keeping. After peace has been established, sometimes quite fragile, then the United Nations will agree, as the case is in Darfur, to go there and help preserve what peace has been negotiated. But back when I was president, and under others, not just me, we not only tried to keep our own country at peace, but we tried to detect threats to peace and to be active mediators, or negotiators, to prevent the outbreak of a conflict.

That I think is what we need to do more now, but unfortunately, since I left the White House, the United States has been involved 100 times in conflicts around the world involving weaponry, 100 times! I can't say that all of them should be condemned, but the general attitude is not to turn to Washington now. In an isolated country, like Somalia, it should be that the people would look upon the United States as an unquestioned superpower on Earth. If they have a threat inside their nation to break down peace, they should immediately say to themselves: "Let's go to Washington because I know the United States of America stands for peace, and they'll help us find peace in our country." Or if they have a threat to democracy, they'll say: "Let's go to Washington because there is the epitome of democracy and freedom; they'll help us find freedom and democracy in our country." Or, if they have a threat in their environment, they'll say: "Let's go to the superpower on Earth, the acknowledged champion of

environmental protection, leading the fight to protect us against global warming." Or, if they have a human rights violation, they would say: "Let's go to Washington because the leaders of America have always raised high the banner of human rights." And if there are instances in their country of the torture of prisoners, or the incarceration of prisoners without any indication of the crime or without access to a lawyer, or without access to their families, or without access to the evidence, they would say: "Let's go to America because that's the kind of thing that America condemns."

That's what we should do with peace, and other vitally important aspects of human life.

Q: What are your recommendations to resolve the problems in Iraq?

A: Well, as most of you would remember, a number of months ago, the Congress ordained that this question should be answered by a strictly bipartisan commission: half Republican, and half Democrat. People who are so prestigious, that nobody would doubt their integrity. It was led by Lee Hamilton, who now is the leader of the Woodrow Wilson Institute, and by James Baker, former secretary of state. It had other leaders, I need not name, one was Sandra Day O'Connor, a Republican, who had just stepped down from the Supreme Court.

That group studied the Iraqi issue for several months, made trips to Iraq, talked to all the surrounding neighbors, and it came out with a recommendation—a very clear recommendation—on how to resolve, most effectively, the Iraqi crisis. One was the orderly and predictable withdrawal of American troops, not running away, but in an orderly fashion. The first step is to move American troops back to non-combat zone. Secondly, to let the Iraqi government know that we were going to withdraw, and they should get their own act in order and become familiar with and capable of preserving the peace as best as they could. Another very important recommendation was to involve all the surrounding nations: including Saudi Arabia, Jordan, Egypt, Oman; and also including Syria and Iran; even including France and Russia. Everyone who is interested in the future of Iraq should come together in a conference convened by the United States of America, and all agree that if and when the United States withdrew its forces that there would not be a vacuum there and there wouldn't be a breakdown into civil war. They would all guarantee that the Iraqi people would have complete control over their politics, over their economy, including oil, and over their military forces. That's the recommendation that I think ought to be fully implemented, but as you know, it was immediately rejected in Washington.

Now, we continue to send more troops to Iraq in what I think is a very counterproductive crisis that I don't think has any chance at all of being addressed substantially until this administration goes out of Washington, and the next administration enters.

CHAPTER TWO

THE CRY OF AN ATOMIC BOMB SURVIVOR

HIROTAMI YAMADA

A Beautiful and Peaceful Town, Shiroyamacho

On August 9, 1945, I lived in the town Shiroyamacho, which is a part of the city of Nagasaki. Nagasaki is in the northwestern part of the island of Kyushu in the extreme western part of Japan. The city itself was founded 400 years ago. Nowadays its unique historical aspects attract many tourists from all over Japan and overseas.

Although my town was considered a part of this old city, it had been newly built twenty years before the atomic bomb was dropped on Nagasaki. I still remember how my neighborhood looked. The south, west, and north sides of Shiroyamacho were surrounded by beautiful hills covered by greenery. There was a main street in the center of the town and it ran across the town from east to west. Along this main street were many houses made of wood and a few mom-and-pop shops where people bought most of their daily needs. Shiroyamacho was mostly a residential area, with approximately 800 households settled there. My house was located in the middle of the north hill.

By August 1945, I had heard that many major Japanese cities had been completely destroyed by the American air force. But it was just a story to me. We felt secure in Shiroyamacho because military facilities, train stations and ports were far away from there.

That's Shiroyamacho, where I spent my peaceful childhood.

When the Bomb Blew the City

My family consisted of six—my mother, father, elder sister, two younger brothers and myself. My father was a junior high school teacher and was

forty-seven-years-old in that year. My mother was thirty-six and my elder sister, who had suffered from some disability since she was born, was sixteen-years-old. My younger brothers were twelve-years-old and nine-months-old. I was fourteen and in the second grade of my junior high school. Our living circumstances were harsh because of the war, but our daily life was enjoyable until that day came.

The Atomic Bomb and My Family

The atomic bomb exploded in the sky above Matsuyamacho 900 meters [half a mile] from my house. In the next moment, Shiroyamacho was completely blasted away, houses were destroyed, and the whole town was covered by fire.

My family's house also collapsed. My mother, sister, and two brothers were caught under the debris. Fortunately, they somehow escaped from the collapsed house. Moreover, they did not appear to have sustained any serious injuries, though they were wounded. A thin blanket covered my infant brother and he was luckily intact.

At the time of the bombing, I was at school, which was located 3.3 km from ground zero. The explosion was too far away to reach the school, so the building and the students were left intact.

My father was not as lucky as the rest of the family. He was on duty at a military factory in northwest Nagasaki, 1.3 km away from ground zero. Beginning in April 1945, all of the older students—from junior high and upper schools—had been dismissed and sent to factories to fill in for the lack of workers. The teachers and administrators, like my father, were sent to these places to supervise students. That is how my father came to be at a military factory. In the explosion, he was seriously injured, receiving severe burns on his face, chest, and both arms. He also had a deep cut in his back. But I had no idea what happened to him at that time.

I still believed we were so lucky. Although my father was still missing at that time, we cherished our survival and the reunion of the family. We did not know the shadow of the bomb was creeping into our happiness. Soon, however, we began to realize that it was not luck but just the beginning of a nightmare.

Three Days Later

After the bombing, people who were either intact or just wounded started dying one by one. Eventually, the shadow of the bomb fell upon us too. On the afternoon of August 12, my baby brother stopped breathing and rested in peace. I noticed that the little one had been getting weaker and weaker for the previous three days since the bombing. But I could not figure out what happened. He did not have any visible injury and died of unknown cause. Of course, we did not know then that the bomb was a new type of killer, giving off heat rays and radiation. There was a rumor that the American military sprayed poisonous gas to kill people without any visible injury.

That night my mother held the body of my little brother on her chest and slept on the ground. We had lost our house in the bombing and the ground was now our bed. The next morning, I discovered that my sister, who had been sleeping beside me on the ground, had died during the night. It was summer and many dead bodies had been abandoned in the streets. The corpses started decaying and giving off an unbearable smell. So we could not keep the bodies of our little brother and sister. We collected wood from the debris of collapsed buildings and cremated their bodies. I felt it took quite a long time to be done. Then we collected their bones and put them in a cheap container.

It seems easy to describe here, but it was cruel work for us and an unforgettable moment.

With their souls, my mother, younger brother, and I left the town heading to the city of Isahaya where my father's mother lived. In Isahaya, we found our father hospitalized at the Japanese Navy hospital. By the time we found him, my mother and brother had become gravely ill and were hospitalized on the premises. Two days later, they could not even sit up on their beds. My brother never opened his eyes again and rested in peace on August 23. The next day, my mother followed him.

It was a miracle that my father recovered from his serious injuries, though some burning scars were left on his face and arms. Later, he was able to return to his teaching work. But the atomic bomb never let him go free. Sixteen years later, he died of lung cancer in December 1961. There's no doubt that my father was killed by the atomic bomb, just as it took away lives of the rest of my family.

Death Caused by Atomic Bomb

We keep on fighting until the day the last nuclear weapon is eradicated. The destruction of the atomic bomb was beyond our imagination. Fierce heat rays that were estimated at 3,000 to 4,000 degrees Celsius scorched people in the blink of a moment. Then, the resulting tremendous blast crushed people to death. At last, invisible radiation haunted intact people, lasting up to the present day, as if it won't stop until it has taken away the life of the last survivor.

In Japan, there are about 2,500 atomic bomb survivors who are still alive. However, 90 percent of these people are suffering from illnesses involving blood formation, liver function, cell generation and endocrine glands. These illnesses are believed to be the side effects of atomic bomb radiation. These illnesses never let patients go free. People are still suffering and dying now. Moreover, people are living with the fear and prejudice that radiation might mutate genes and affect their descendants. There is no certainty about the long-term effect of nuclear weapons.

I hereby want to emphasize that such a weapon should never be used again. Banning the usage and possession of nuclear weapons is a very urgent and serious matter upon which we must act. We must not create another victim of nuclear weapons. Mankind has learned many things in the past through tragic experiences and suffering. That learning ability eventually led us to ban poisonous gas and dum-dum bullets. Now people are calling for a worldwide ban on the use of cluster bombs.

If more people worldwide understand the massive destruction caused by nuclear weapons and their awful power, someday people will take their abolition for granted. Until that day comes, we shall never stop telling people about our stories.

CHAPTER THREE

REVERENCE AND RADIATION: REVERENCE FOR LIFE AND ALBERT SCHWEITZER'S CAMPAIGN AGAINST NUCLEAR TESTING

BENJAMIN B. PAGE

On the evening of April 26, 1957, news that Albert Schweitzer had delivered a statement on the dangers of nuclear testing flashed across the electric signboard in New York's Times Square; the next day the *Times* carried a large portion of the text. "It was the fullest account of the scientific basis for the case against the explosions that has yet appeared in America. Never before have the American people been given such concisely stated facts on this critically important problem. And you write your Declaration from a vantage point completely outside the political arena. You write with the ethic and culture of man uppermost in your mind."[1] This was the gushing report of journalist and editor Norman Cousins to Schweitzer, telling him of the reception given in the U.S. to his internationally broadcast radio address to the people of the world. Odd words, perhaps, when addressed to someone best known as "the great humanitarian" who had given up a brilliant career in music, theology, and philosophy in Europe to become a doctor and devote the bulk of his remaining five decades to creating and running a hospital in equatorial Africa.[2] Yet the information, warnings, and appeals Schweitzer presented in this and subsequent addresses made a significant contribution to the arousing of opposition from the general public and the scientific community to the testing of nuclear weapons and hence to the 1963 Partial Test Ban Treaty. Dismayingly, that same information, the same warnings and appeals, are even more relevant for us today, now that the "club" of nuclear powers continues to grow and we the people of the world have largely become resigned to the constant presence of the dangers of the

testing, stockpiling, and possible use of the weapons as "normal." Schweitzer would certainly welcome the recent agreement between the U.S. and Russia to undertake further negotiations on reducing the number of their nuclear weapons, but it is still only a tentative first step between two countries that, while major and formerly enemy, are today far from the only countries with nuclear weapons or intentions of producing them.

Backgrounds

Reverence for Life

Cousins had good reason to gush—it was he who had convinced Schweitzer to go public with his concerns about the dangers of nuclear testing.[3] However, although Cousins had had to draw upon his considerable diplomatic and persuasive powers, this was not Schweitzer's first published expression of what he saw as the continuing threat of war or the direction in which "civilization" seemed to him to be moving. In his autobiography, Schweitzer writes of how ever since his days as a university student in the late 1890s, despite the then popular optimism he had "grown to doubt that mankind [was] steadily moving toward improvement…the fire of its ideals was burning out without anyone worrying or caring about it." Public opinion not only failed to reject "barbaric" notions, it went so far as to approve "inhumane conduct whether by governments or by individuals"; zeal for justice was "lukewarm" at best. Schweitzer noted "symptoms of intellectual and spiritual fatigue in this generation that [was] so proud of its achievements"; its members seemed to be "trying to convince one another that their previous hopes for mankind had been placed too high…The slogan of the day, '*Realpolitik*' meant a shortsighted nationalism and a pact with forces and tendencies that had hitherto been resisted as enemies of progress." Schweitzer had thought of writing a book on "the decadence of civilization" and the dangers it portended, but the outbreak of World War I obviated the need for such a project: "the catastrophe had already come about."[4]

To be sure, Schweitzer was far from unique in harboring such forebodings. What matters here is that his concern about the future of "civilization" and his desire, in the wake of the First World War, to aid in its resuscitation were in fact the background impulse leading him to the phrase which was to become the principal *leitmotiv* of his further thinking and writing.[5] In 1915, while together with his wife Helene under house arrest as German nationals in a French colony and for a time prevented